WO2004/084956 PCT/EP2004/003198

Claims

1. Test device (1), especially to test the penetration characteristics of a sterilization agent with a detector-volume (24) designed to house an indicator (26) connected to a sterilization chamber via a gas-collection-volume (4) characterized in that the gas-collection-volume being multi-stage-designed so that both cross section and volume of each stage (12, 14, 16) decrease between neighboring volumes (12, 14, 16) towards the direction of the detector volume.

- 2. Test device (1) according to claim 1, where the cross section between neighbouring volumes (12, 14, 16) decreases towards the direction of the detector volume (24) by a minimum of 50%, better more than 75%.
- 3. Test device (1) according to claim 1 or 2, where the cross section of the gascollection-volume (4) directly adjacent to the detector volume (24) is ca. 1 to 200 mm².
- 4. Test device (1) according to one of the claims 1 to 3, where the gas-collection-volume (4) directly adjacent to the detector volume (24) has a channel length of minimum 10 cm, better ca. 30 to 100 cm.
- 5. Test device (1) according to one of the claims 1 to 4, where one stage (14) of the gas-collection-volume (4) is arranged within another stage (16) of the gas-collection-volume (4).
- 6. Test device (1) according to claim 5, where the next stage (16) of the gas-collection-volume (4) is formed by an outside case (30) enclosing the first stage (14).
- 7. Test device (1) according to one of the claims 1 to 4, where one stage (14) of the gas-collection-volume (4) is built around an outside case (30) which forms another stage (16) of the gas-collection-volume (4).

WO2004/084956 PCT/EP2004/003198

8. Test device (1) according to one of the claims 1 to 7, where at least one stage (14, 16) of the gas-collection-volume (4) is filled with porous material (34).

- 9. Test device (1) according to one of the claims 1 to 8, where the detector volume (24) is selected to be smaller than 500 μ l.
- 10. Test device (1) according to one of the claims 1 to 9, where a chemical or biological indicator is used as an indicator (26).